

Appendix A

Version With Markings to Show Changes Made

In reference to the amendments made herein to claims 1, 3, 10, 12, 21, 23, 29, and 31, additions appear as underlined text, while deletions appear as bracketed text, as indicated below:

In The Claims:

Please cancel claims 2, 11, 22, and 30 and amend claims 1, 3, 10, 12, 21, 23, 29, and 31 as follows:

1. (Amended) A bus system for transferring signals from a plurality of signal streams to an output, the bus system comprising:

- a plurality of signal buses [in parallel]; and
- a control system [for multiplexing] that couples the signals from two or more of the plurality of signal streams onto two or more one of the plurality of signal buses and allowing the signals to substantially charge each of the two or more of the plurality of signal buses before [demultiplexing] coupling the signals to the output,
- wherein the control system provides binning by coupling the signals from two or more adjacent signals buses in the plurality of signal buses to the output at substantially the same time to average the signals on these signal buses together.

3. (Amended) [The] A bus system [as set forth in claim 1] comprising:

- a plurality of signal buses; and
- a control system that couples the signals from two or more of a plurality of signal streams onto two or more one of the plurality of signal buses and allows the signals to substantially charge each of the two or more of the plurality of signal buses before coupling the signals to an output,
- wherein the control system provides interpolation by coupling [each of] the two or more of the signals from [each of] the plurality of signal buses to the output separately and between coupling the two or more of the signals from the plurality of signal buses to the output separately, coupling each of the signals from adjacent pairs of the plurality of signal streams to the output at substantially the same time to obtain an interpolated signal.

10. (Amended) An imager comprising:

a plurality of streams of signals from a source;

a plurality of signal buses in parallel;

an output; and

a control system [for multiplexing] that couples the signals from two or more of the plurality of signal streams onto two or more of the plurality of signal buses and [allowing] allows the signals to substantially charge each of the two or more of the plurality of signal buses before [demultiplexing] coupling the signals to the output;

wherein the control system provides binning by coupling the signals from two or more adjacent signal buses in the plurality of signal buses to the output at substantially the same time to average the signals on these signal buses together.

12. (Amended) [The] An imager [as set forth in claim 10] comprising:

a plurality of signal buses; and

a control system that couples the signals from two or more of a plurality of signal streams onto two or more one of the plurality of signal buses and allows the signals to substantially charge each of the two or more of the plurality of signal buses before coupling the signals to an output,

wherein the control system provides interpolation by coupling [each of] the two or more of the signals from [each of] the plurality of signal buses to the output separately and between coupling the two or more of the signals from the plurality of signal buses to the output separately, coupling each of the signals from adjacent pairs of the plurality of signal streams to the output at substantially the same time to obtain an interpolated signal.

21. (Amended) A bus system for transferring signals from a plurality of signal streams to an output, the bus system comprising:

a plurality of signal buses coupled to the plurality signal streams;

a plurality of first switches, each of the plurality of first switches coupled between one of the plurality of signal streams and one of the plurality of signal buses;

a plurality of second switches, each of the plurality of second switches coupled between one of the plurality of signal buses and the output; and

a control system coupled to the first and second switches, the control system closing two or more of the plurality of first switches to couple signals from the two or more of the plurality of signal streams to two or more of the plurality of signal buses and allowing the signals to substantially charge each of the two or more of the plurality of signal buses before closing one or more of the plurality of second switches to couple the signals to the output;

wherein the control system provides binning by coupling the signals from two or more adjacent signals buses in the plurality of signal buses to the output at substantially the same time to average the signals on these signal buses together.

23. (Amended) [The bus system as set forth in claim 21] A bus system for transferring signals from a plurality of signal streams to an output, the bus system comprising:

a plurality of signal buses coupled to the plurality signal streams;
a plurality of first switches, each of the plurality of first switches coupled between one of the plurality of signal streams and one of the plurality of signal buses;

a plurality of second switches, each of the plurality of second switches coupled between one of the plurality of signal buses and the output; and

a control system coupled to the first and second switches, the control system closing two or more of the plurality of first switches to couple signals from the two or more of the plurality of signal streams to two or more of the plurality of signal buses and allowing the signals to substantially charge each of the two or more of the plurality of signal buses before closing one or more of the plurality of second switches to couple the signals to the output;

wherein the control system provides interpolation by coupling [each of] the two or more of the signals from [each of] the plurality of signal buses to the output separately and between coupling the two or more of the signals from the plurality of signal buses to the output separately coupling each of the signals from adjacent pairs of the plurality of signal streams to the output at substantially the same time to obtain an interpolated signal.

29. (Amended) A method for transferring signals comprising:

[multiplexing] coupling signals on to two or more of a plurality of signal buses; [and]

allowing the signals to substantially charge each of the two or more of the plurality of signal buses before [demultiplexing] coupling the signals to an output[.] ; and

binning by coupling the signals from two or more adjacent signals buses in the plurality of signal buses to the output at substantially the same time to average the signals on these signal buses together.

31. Amended) [The method as set forth in claim 29 further comprising] A method for transferring signals comprising:

coupling signals on to two or more of a plurality of signal buses;

allowing the signals to substantially charge each of the two or more of the plurality of signal buses before coupling the signals to an output; and

interpolating by coupling [each of] the two or more of the signals from [each of] the plurality of signal buses to the output separately and between coupling the two or more of the signals from the plurality of signal buses to the output separately, coupling each of the signals from adjacent pairs of the plurality of signal streams to the output at substantially the same time to obtain an interpolated signal.